

REMARKS

Applicants thank the Examiner for the very thorough consideration given the present application. In view of the above amendment, applicants believe the pending application is in condition for allowance.

Claims 1, 3-25, 27-33 and 35 are now present in this application. Claims 1, 12, 25 and 33 are independent. Claims 2, 26 and 34 have been canceled, and claims 1, 3, 25, 27 and 33 have been amended. Reconsideration of this application, as amended, is respectfully requested.

Information Disclosure Citation

Applicants thank the Examiner for considering the reference supplied with the Information Disclosure Statement filed September 21, 2006, and for providing Applicants with an initialed copy of the PTO-1449 or PTO-SB08 form filed therewith.

The Examiner has not provided Applicants with an initialed copy of the PTO-1449 or PTO-SB08 form filed with the Information Disclosure Statement filed October 22, 2007. An initialed copy thereof is respectfully requested from the Examiner in the next Office Action.

Allowable Subject Matter

The Examiner states that claims 12-24 are allowable. The Examiner states that claims 3, 27 and 28 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. § 112, 2nd Paragraph. Applicants thank the Examiner for the early indication of allowable subject matter in this application. However, claims 3, 27 and 28 have not been rewritten in independent form at this time, since it is believed that amended independent claims 1, 25 and 33 from which these claims depend are allowable.

Rejection Under 35 U.S.C. §§ 102 & 103

Claims 1, 2, 9 and 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by He et al. Claims 25, 26 and 30-32 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kwon et al. Claims 33 and 34 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Fukuda.

Further, Claims 4-8 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over He et al. Claim 30 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Kwon et al. Claim 35 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukuda. These rejections are respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

Independent claim 1 has been amended to incorporate the features recited in canceled dependent claim 2. Similarly, independent claim 25 and 33 have been amended to incorporate the features recited in canceled dependent claims 26 and 34, respectively. Thus, amended independent claim 1 includes a combination of elements and further recites that the aspherical microlenses have different curvature radius and conic coefficient, respectively, along two orthogonal axes on the base perpendicular to an optical axis. Amended independent claims 25 and 33 include similar features in a varying scope.

In the present invention, by having different curvature radii and conic coefficients along the two orthogonal axes, a degree of infraction of an optical system is easily adjusted according to each axial direction, and a spherical aberration is decreased, and concentration efficiency is increased. He et al. teaches the elliptical microlens having different aperture size and different radii of curvatures in the x and y directions to have different focal lengths and different F# in the x and y directions (see Section 3 of He et al.). However, He et al. fails to teach or suggest that the microlenses have different conic coefficients along two orthogonal axes on the base perpendicular to an optical axis. Therefore, He et al. fails to teach or suggest the features in amended independent claim 1.

In addition, Kwon et al. teaches a projection screen having micro lenses. Kwon et al. further teaches that the microlenses are formed in an elliptical shape, and the viewing angles in the horizontal and vertical axes are improved (see paragraph [0069] of Kwon et al.). However, Kwon et al. does not teach or suggest that the microlenses have respectively different curvature radii and conic coefficients along two orthogonal axes on the base perpendicular to an optical axis. Therefore, He et al. fails to teach or suggest the features in amended independent claim 25.

Further, Fukuda teaches aspherical microlenses having a lens surface of a hyperboloid of revolution or an ellipsoid of revolution, with a specific lens pitch (see paragraphs [0009] and [0028]). However, Fukuda does not teach or suggest that the microlenses have respectively different curvature radii and conic coefficients along two orthogonal axes on the base perpendicular to an optical axis. Therefore, Fukuda fails to teach or suggest the features in amended independent claim 33.

Accordingly, amended independent claims 1, 25 and 33, and each of the claims depending therefrom are allowable.

Further, it is respectfully submitted the other 35 U.S.C. § 103(a) rejections have also been overcome as the claims rejected therein are dependent claims and the applied references also do not teach or suggest the features recited in the independent claims due to the reasons discussed above.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Jun S. Ha, Registration No. 58,508, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

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Amendment dated December 13, 2007
Reply to Office Action of August 13, 2007

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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